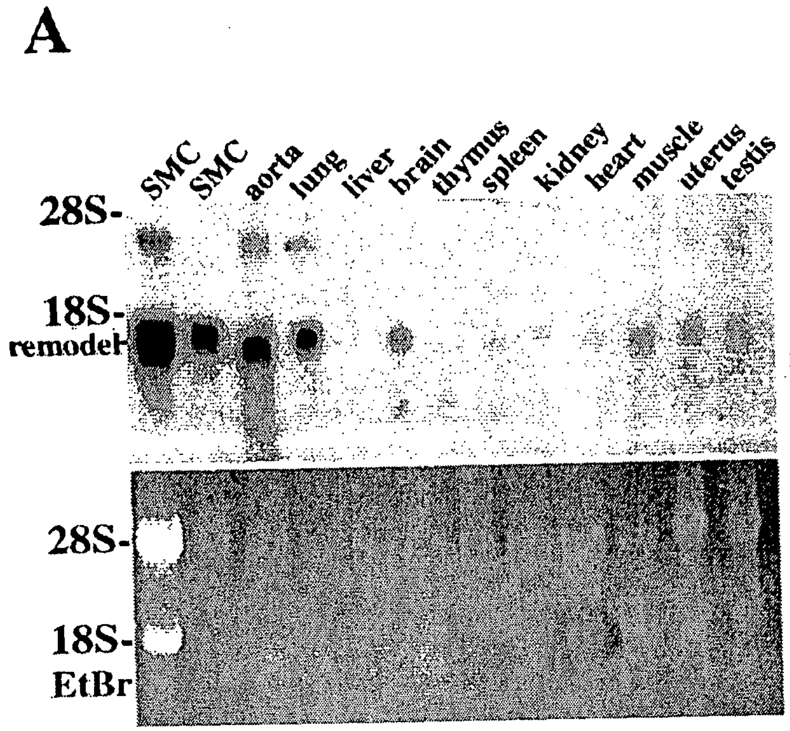


FIG.1A-1

FIG.1A-2

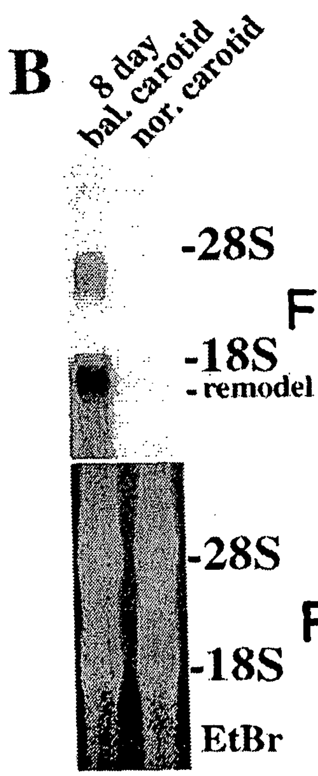


FIG.1B-1

FIG.1B-2

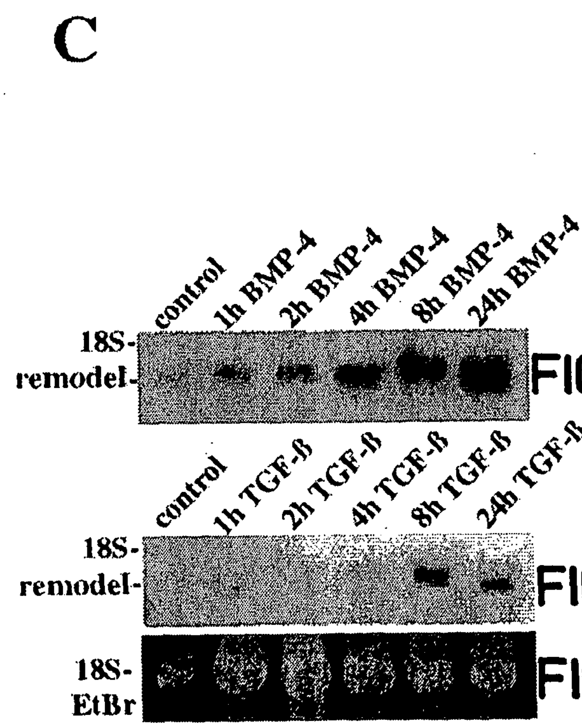


FIG.1C-1

FIG.1C-2

FIG.1C-3

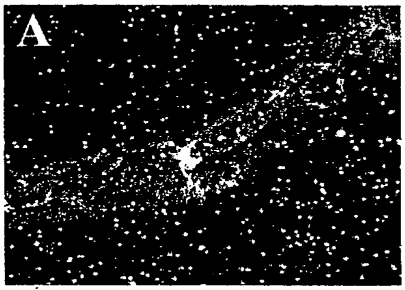


FIG.2A

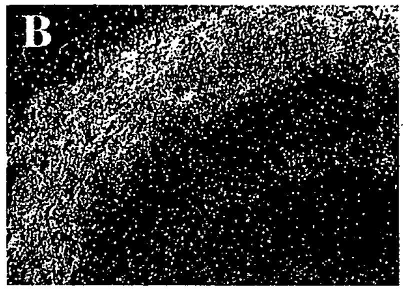


FIG.2B

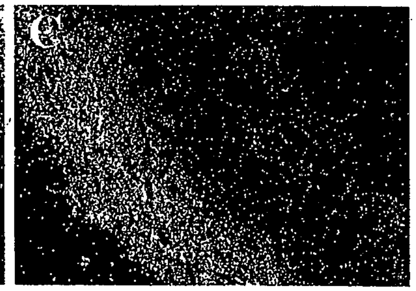


FIG.2C

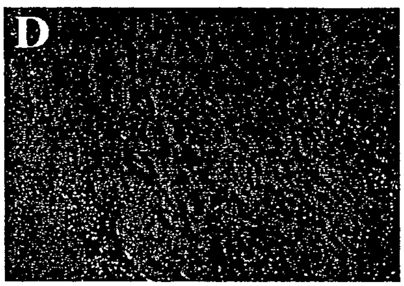


FIG.2D

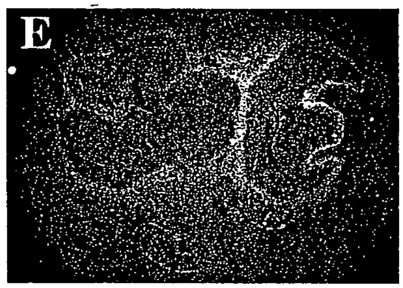


FIG.2E

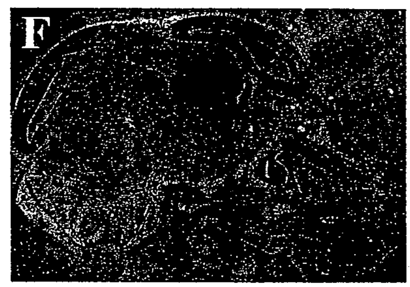


FIG.2F

FIG.2G

FIG.2H

FIG.2I

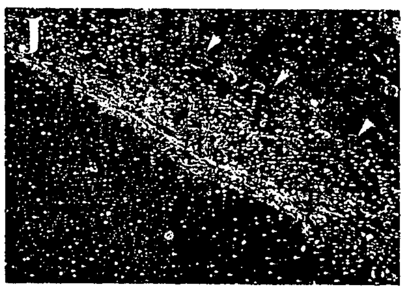


FIG.2J

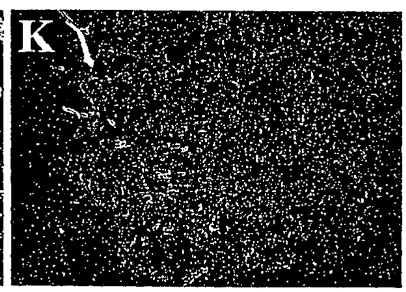


FIG.2K

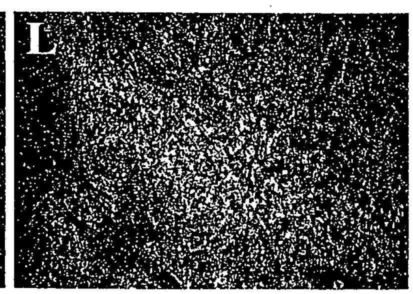


FIG.2L

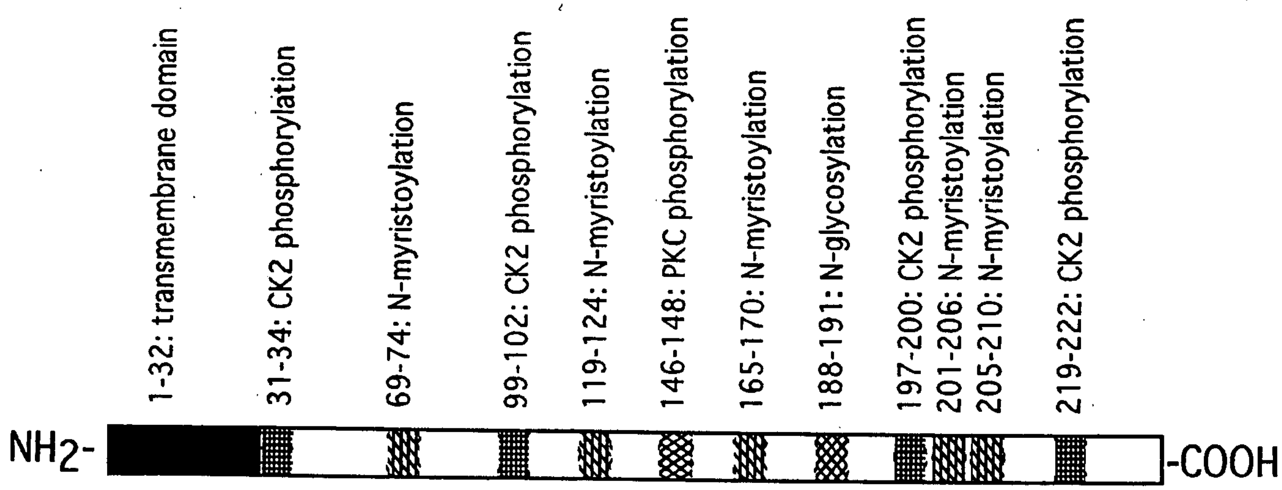

1-32: transmembrane domain
31-34: CK2 phosphorylation
69-74: N-myristoylation
99-102: CK2 phosphorylation
119-124: N-myristoylation
146-148: PKC phosphorylation
165-170: N-myristoylation
188-191: N-glycosylation
197-200: CK2 phosphorylation
201-206: N-myristoylation
205-210: N-myristoylation
219-222: CK2 phosphorylation
NH_2-
-COOH

FIG.3

```
                 30         40               50         60         70
Rat      ATGCGGCCGGCCGCAGAGCTGGGC-----CAGACGCTGAGCAGGGCCGGGCTCTGCCGAC
Human    ACGAGGGCGGCCTCGGAGCGCGGCGGAGCCAGACGCTGACCACGTTCCT-CTCCTCGGTC
                 10         20         30         40         50         60
                80         90        100        110        120        130
Rat      CCCTTTGCCTCCTGCTCTGCGCTTCGCAGCTACCGCACACGATGCACCCCCAAGGCCGCG
Human    TCCTCCGCCTCCAGCTCCGCGCTGCCCGGCAGCCGGGAGCCATGCGACCCCAGGGCCCCG
                 70         80         90        100        110        120
               140        150        160        170        180        190
Rat      CCGCCTCCCCACAGCTGCTGCTCGGCCTCTTCCTTGTGCTACTGCTGCTTCTGCAGCTGT
Human    CCGCCTCCCCGCAGCGGCTCCGCGGCCTCCT------GCTGCTCCTGCTGCTGCAGCTGC
                130        140        150              160        170
               200        210        220        230        240        250
Rat      CCGCGCCGTCCAGCGCCTCTGAGAATCCCAAGGTGAAGCAAAAAGCGCTGATCCGGCAGA
Human    CCGCGCCGTCGAGCGCCTCTGAGATCCCCAAGGGGAAGCAAAAGGCGCAGCTCCGGCAGA
              180        190        200        210        220        230
               260        270        280        290        300        310
Rat      GGGAAGTGGTAGACCTGTATAATGGGATGTGCCTACAAGGACCAGCAGGAGTTCCTGGTC
Human    GGGAGGTGGTGGACCTGTATAATGGAATGTGCTTACAAGGGCCAGCAGGAGTGCCTGGTC
              240        250        260        270        280        290
               320        330        340        350        360        370
Rat      GCGATGGGAGCCCTGGGGCCAATGGCATTCCTGGCACACCGGGAATCCCAGGTCGGGATG
Human    GAGACGGGAGCCCTGGGGCCAATGGCATTCCGGGTACACCTGGGATCCCAGGTCGGGATG
              300        310        320        330        340        350
               380        390        400        410        420        430
Rat      GATTCAAAGGAGAGAAAGGGGAGTGCTTAAGGGAAAGCTTTGAGGAATCCTGGACCCCAA
Human    GATTCAAAGGAGAAAAGGGGGAATGTCTGAGGGAAAGCTTTGAGGAGTCCTGGACACCCA
              360        370        380        390        400        410
               440        450        460        470        480        490
Rat      ACTACAAGCAGTGTTCATGGAGTTCACTTAATTATGGCATAGATCTTGGGAAAATTGCGG
Human    ACTACAAGCAGTGTTCATGGAGTTCATTGAATTATGGCATAGATCTTGGGAAAATTGCGG
420         430        440        450        460        470
               500        510        520        530        540        550
Rat      AATGTACATTCACAAAGATGCGATCCAACAGCGCTCTTCGAGTTCTGTTCAGTGGCTCGC
Human    AGTGTACATTTACAAAGATGCGTTCAAATAGTGCTCTAAGAGTTTTGTTCAGTGGCTCAC
              480        490        500        510        520        530

               560        570        580        590        600        610
Rat      TTCGGCTCAAATGCAGGAATGCTTGCTGTCAACGCTGGTATTTTACCTTTAATGGAGCTG
Human    TTCGGCTAAAATGCAGAAATGCATGCTGTCAGCGTTGGTATTTCACATTCAATGGAGCTG
              540        550        560        570        580        590
               620        630        640        650        660        670
Rat      AATGTTCAGGACCTCTTCCCATTGAAGCTATCATCTATCTGGACCAAGGAAGCCCTGAGT
Human    AATGTTCAGGACCTCTTCCCATTGAAGCTATAATTTATTTGGACCAAGGAAGCCCTGAAA
              600        610        620        630        640        650
               680        690        700        710        720        730
Rat      TAAATTCAACTATTAATATTCATCGTACTTCCTCCGTGGAAGGACTCTGTGAAGGGATTG
Human    TGAATTCAACAATTAATATTCATCGCACTTCTTCTGTGGAAGGACTTTGTGAAGGAATTG
              660        670        680        690        700        710
               740        750        760        770        780        790
Rat      GTGCTGGACTGGTAGACGTGGCCATCTGGGTCGGCACCTGTTCAGATTACCCCAAAGGAG
```

FIG.4A

```
Human GTGCTGGATTAGTGGATGTTGCTATCTGGGTTGGCACTTGTTCAGATTACCCAAAAGGAG
        720       730       740       750       760       770
         800       810       820       830       840       850
Rat   ACGCTTCTACTGGGTGGAATTCTGTGTCCCGCATCATCATTGAAGAACTACCAAAATAAA
Human ATGCTTCTACTGGATGGAATTCAGTTTCTCGCATCATTATTGAAGAACTACCAAAATAAA
        780       790       800       810       820       830
         860       870       880       890       900       910
Rat   GCCCCTGAAGGTTTCATTCCCTGCCTCATTTACTTGTTAAATCAAGCCTCTGGATGGGTC
Human TGCTTTAAT--TTTCATTTGCTACCTCTTTTTTT------ATTATGCCTTGGAATGGTTC
        840        850       860                 870       880
         920       930       940       950       960       970
Rat   ATTTAAATGACATTTCAGAAGTCACTTATGTGCTCAGCCAAATGAAAAAGCAAAGTTAAA
Human ACTTAAATGACATTTTA-AATAAGTTTATGTATACATCTGAATGAAAA-GCAAAGCTAAA
      890       900       910       920       930       940
         980       990      1000        1010      1020      1030
Rat   TACGTTTACAGACCAAAGTGTGATCTCACACT---TTAAGATCTAGCATTATCCATTTTA
Human TATGTTTACAGACCAAAGTGTGATTTCACACTGTTTTAAATCTAGCATTATTCATTTTG
        950       960       970       980       990      1000
           1040      1050      1060      1070       1080
Rat   TTTCAACCAAAGATGGTTTCAGGATTTTATTTCTCATT--GATTACTTTTTG--------
Human CTTCAATCAAAAGTGGTTTCAATATTTTTTTAGTTGGTTAGAATACTTTCTTCATAGTCA
       1010      1020      1030      1040      1050      1060
                1090      1100      1110      1120      1130
Rat   ---------AGCCTATATACCGGAATGCTGTTATAGTCTTTAATATTTCCTACT-GTTGA
Human CATTCTCTCAACCTATAATTTGGAATATTGTTGTGGTCTTTTGTTTTTTCTCTTAGTATA
       1070      1080      1090      1100      1110      1120
           1140             1150            1160          1170
1180
Rat   -CATTTTGAAACA--TATAAAAGTTATG--TCTTTGTAAGAGCTGTATA------GAATT
Human GCATTTTTAAAAAAATATAAAAGCTACCAATCTTTGTACAATTTGTAAATGTTAAGAATT
       1130      1140      1150      1160      1170      1180
              1190      1200          1210
Rat   ATTTT---ATATGTTAAATAAA---TGCTTCAAACAA
Human TTTTTTATATCTGTTAAATAAAAATTATTTCCAACAA
       1190      1200      1210      1220
```

FIG4A-1

```
Rat:       1   MHPQGRAASPQLLLGLFLVLLLLLQLSAPSSASENPKVKQKALIRQREVVDLYNGMCLQG   60
               M+PQG+AASPQ+L+GL+++LLLLLQL+APSSASE+PK+KQKA++RQREVVDLYNGMCLQG
Human:     1   MRPQGPAASPQRLRGL--LLLLLQLPAPSSASEIPKGKQKAQLRQREVVDLYNGMCLQG   58

Rat:      61   PAGVPGRDGSPGANGIPGTPGIPGRDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGI   120
               PAGVPGRDGSPGANGIPGTPGIPGRDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGI
Human:    59   PAGVPGRDGSPGANGIPGTPGIPGRDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGI   118

Rat:     121   DLGKIAECTFTKMRSNSALRVLFSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYL   180
               DLGKIAECTFTKMRSNSALRVLFSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYL
Human:   119   DLGKIAECTFTKMRSNSALRVLFSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYL   178

Rat:     181   DQGSPELNSTINIHRTSSVEGLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIII   240
               DQGSPE+NSTINIHRTSSVEGLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIII
Human:   179   DQGSPEMNSTINIHRTSSVEGLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIII   238

Rat:     241   EELPK     245
               EELPK
Human:   239   EELPK     243
```

FIG.4B

MRPAAELGQTLSRAGLCRPLCLLLCASQLPHTMHPQGRAASPQLLLGLFLVLLLLLQL
SAPSSASENPKVKQKALIRQREVVDLYNGMCLQGPAGVPGRDGSPGANGIPGTPGIPG
RDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGIDLGKIAECTFTKMRSNSALRVL
FSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYLDQGSPELNSTINIHRTSSVE
GLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIIIEELPK

FIG.4C

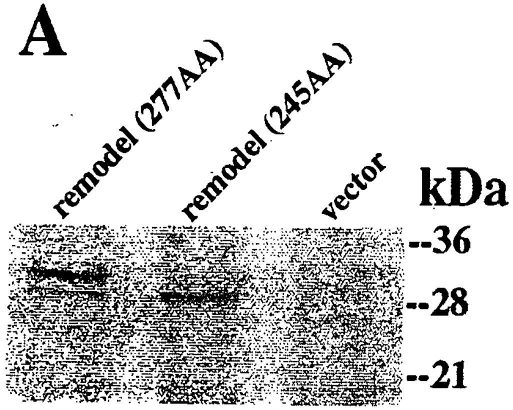


FIG.5A

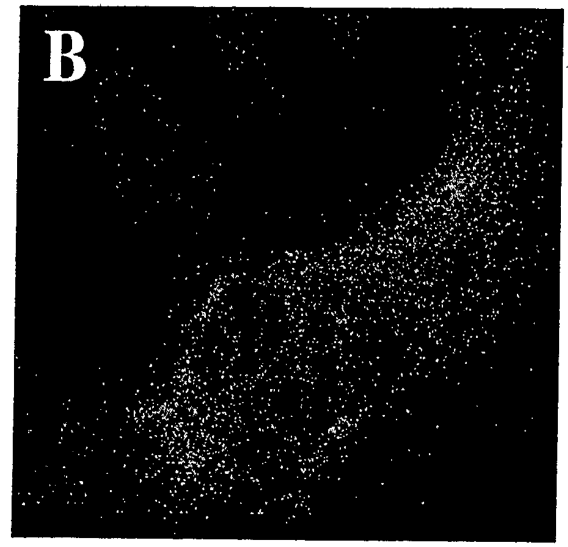


FIG.5B

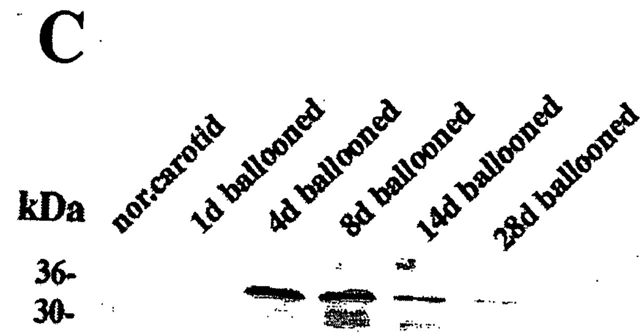


FIG.5C

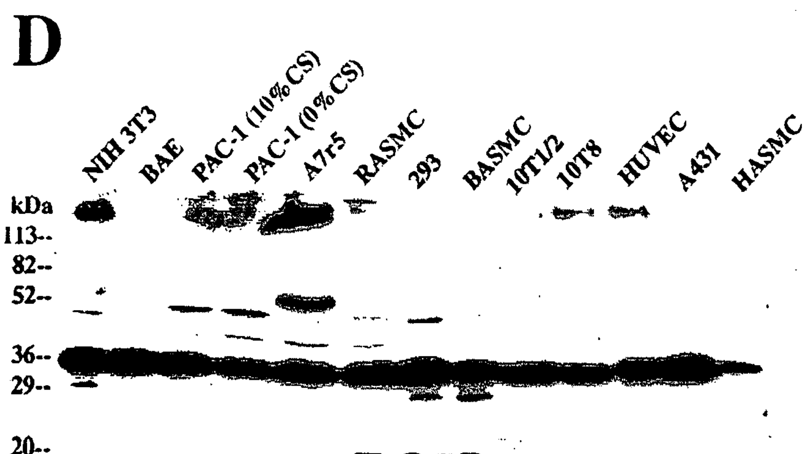


FIG.5D

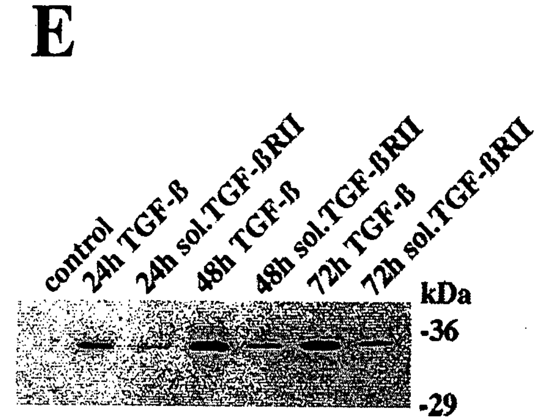


FIG.5E

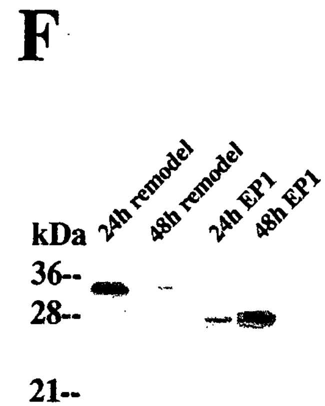


FIG.5F

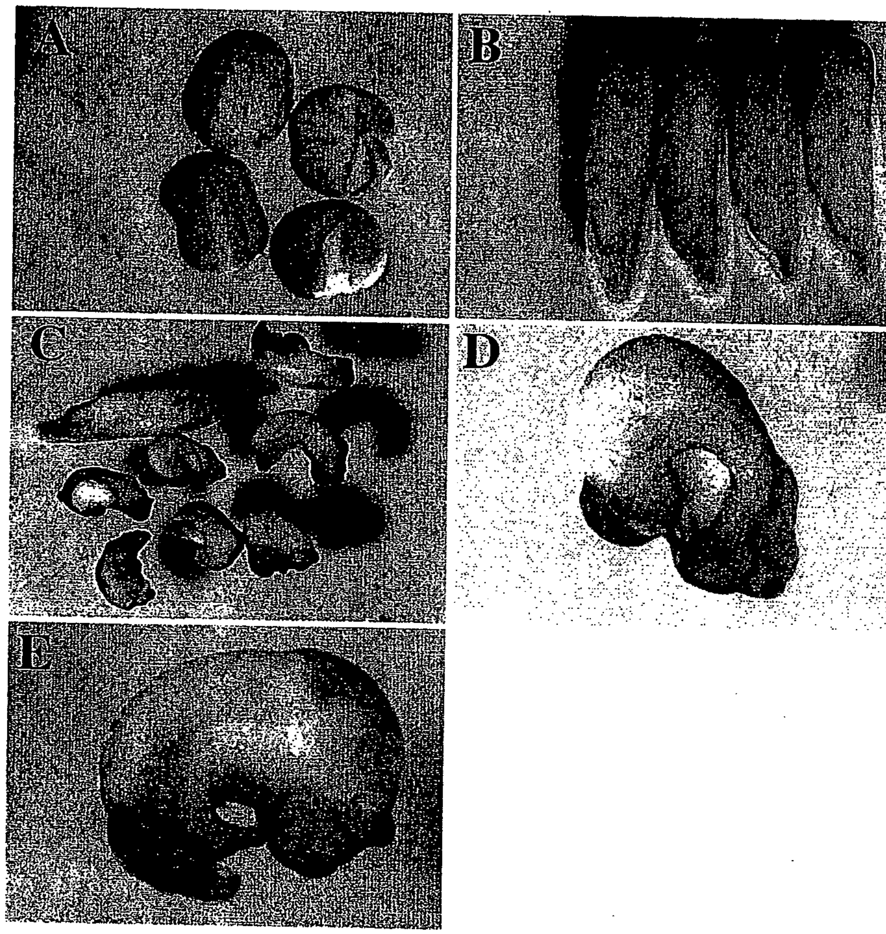
FIG.6A

FIG.6B

FIG.6C

FIG.6D

FIG.6E



```
ATG GCCCCCAAGG CCGCGCCGCC TCCCCACAGC TGCTGCTCGG CCTCTTCCTT GTGCTACTGC
    TGCTTCTGCA GCTGTCCGCG CCGTCCAGCG CCTCTGAGAA TCCCAAGGTG AAGCAAAAAG
    CGCTGATCCG GCAGAGGGAA GTGGTAGACC TGTATAATGG GATGTGCCTA CAAGGACCAG
    CAGGAGTTCC TGGTCGCGAT GGGAGCCCTG GGGCCAATGG CATTCCTGGC ACACCGGGAA
    TCCCAGGTCG GGATGGATTC AAAGGAGAGA AAGGGGAGTG CTTAAGGGAA AGCTTTGAGG
    AATCCTGGAC CCCAAACTAC AAGCAGTGTT CATGGAGTTC ACTTAATTAT GGCATAGATC
    TTGGGAAAAT TGCGGAATGT ACATTCACAA AGATGCGATC CAACAGCGCT CTTCGAGTTC
    TGTTCAGTGG CTCGCTTCGG CTCAAATGCA GGAATGCTTG CTGTCAACGC TGGTATTTTA
    CCTTTAATGG AGCTGAATGT TCAGGACCTC TTCCCATTGA AGCTATCATC TATCTGGACC
    AAGGAAGCCC TGAGTTAAAT TCAACTATTA ATATTCATCG TACTTCCTCC GTGGAAGGAC
    TCTGTGAAGG GATTGGTGCT GGACTGGTAG ACGTGGCCAT CTGGGTCGGC ACCTGTTCAG
    ATTACCCCAA AGGAGACGCT TCTACTGGGT GGAATTCTGT GTCCCGCATC ATCATTGAAG
    AACTACCAAA A
```

FIG.7

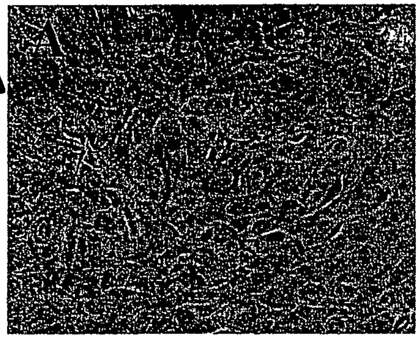
FIG.8A


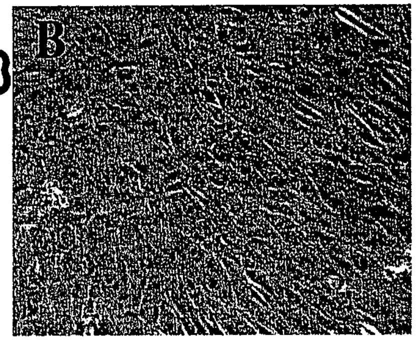
FIG.8D


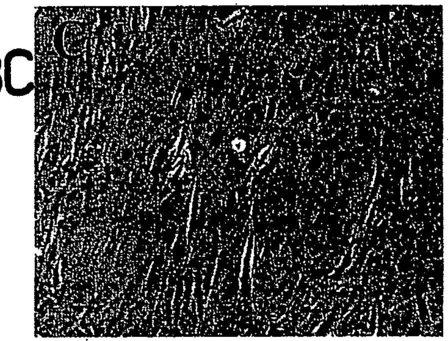
FIG.8C


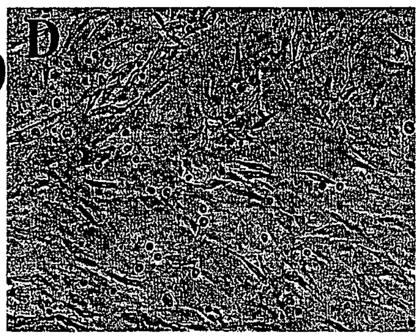
FIG.8D


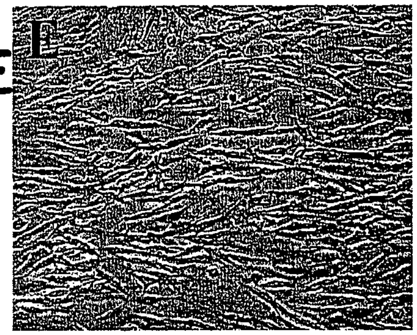
FIG.8E


FIG.8F

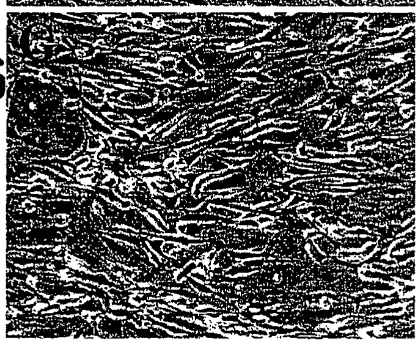
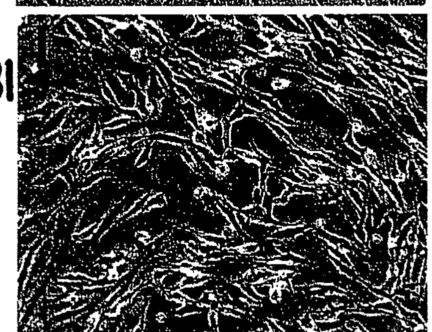

FIG.8G


FIG.8H


FIG.8I


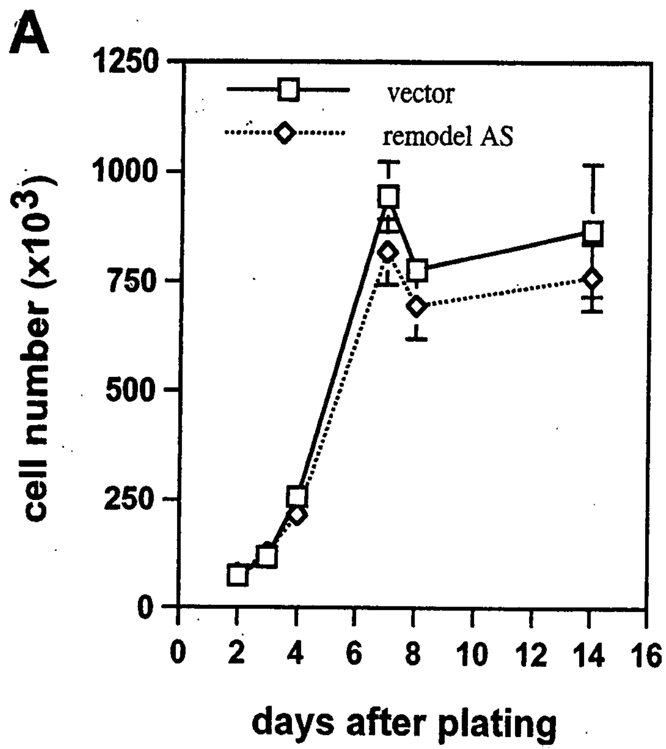

A
cell number (x10^3)
1250
1000
750
500
250
0
0
2
4
6
8
10
12
14
16
days after plating
vector
remodel AS

FIG.9A

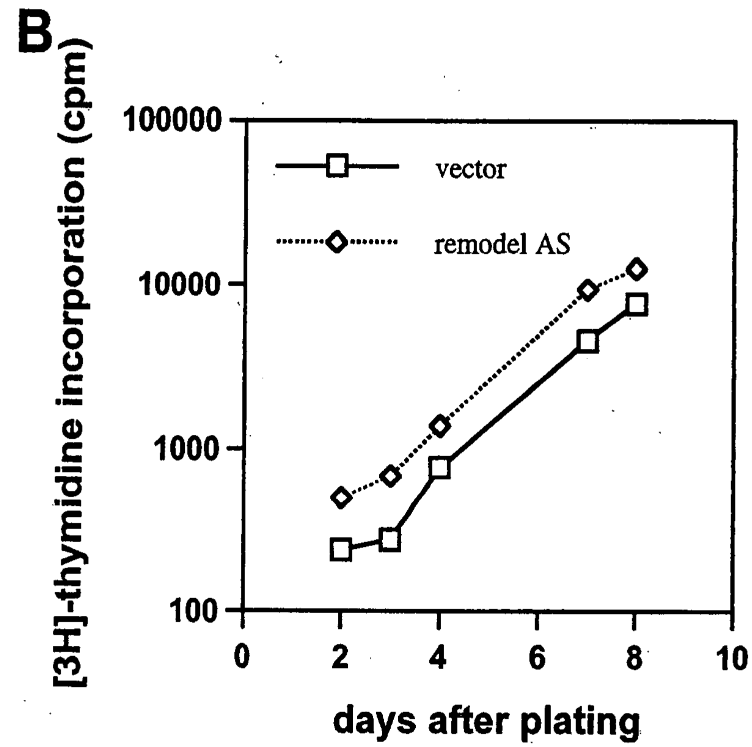

B
[3H]-thymidine incorporation (cpm)
100000
10000
1000
100
0
2
4
6
8
10
days after plating
vector
remodel AS

FIG.9B

A

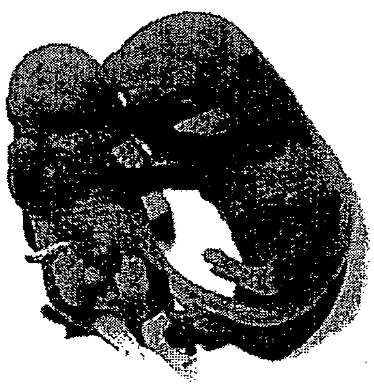


FIG.10A

B

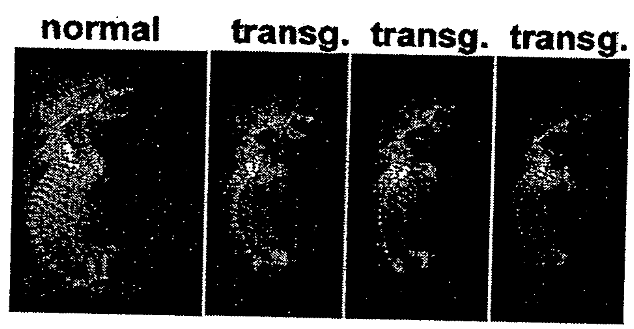
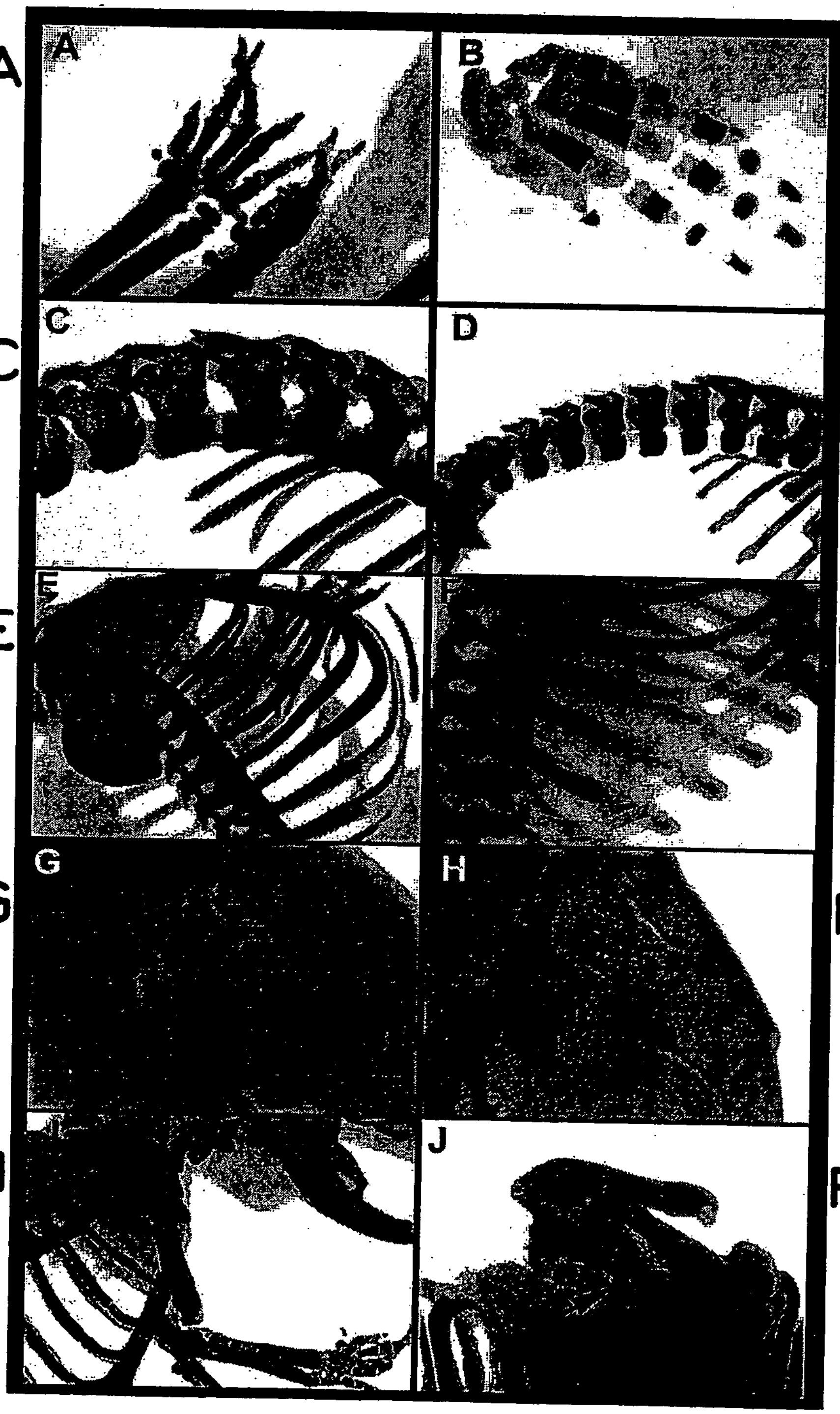


FIG.10B

C

FIG.10C

FIG.11A FIG.11B
FIG.11C FIG.11D
FIG.11E FIG.11F
FIG.11G FIG.11H
FIG.11H FIG.11J



CCACCCAGUAGAAGCGUCUCCUUUGGGGUAAUCUGAACAGGUGCCGACCCAGAUGGCC
ACGUCUACCAGUCCAGCACCAAUCCCUUCACAGAGUCCUUCCACGGAGGAAGUACGAU
GAAUAUUAAUAGUUGAAUUUAACUCAGGGCUUCCUUGGUCCAGAUAGAUGAUAGCUUC
AAUGGGAAGAGGUCCUGAACAUUCAGCUCCAUUAAAGGUAAAAUACCAGCGUUGACAG
CAAGCAUUCCUGCAUUUGAGCCGAAGCGAGCCACUGAACAGAACUCGAAGAGCGCUGU
UGGAUCGCAUCUUUGUGAAUGUACAUUCCGCAAUUUUCCCAAGAUCUAUGCCAUAAUU
AAGUGAACUCCAUGAACACUGCUUGUAGUUUGGGGUCCAGGAUUCCUCAAAGCUU

FIG. 12